

## Molecular Survey on *Tritrichomonas foetus* infection in cats of Southwestern Iran

Hossein Hamidinejat<sup>1\*</sup>, Atousa Hamd Baghestani<sup>2</sup>, Sara Larki<sup>3</sup> and Bahman Mosalanezhad<sup>4</sup>

<sup>1</sup> Professor, Department of Pathobiology, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

<sup>2</sup> DVM Graduated from Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

<sup>3</sup> Assistant Professor, Department of Pathobiology, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

<sup>4</sup> Professor, Department of Clinical Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

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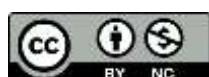
### Abstract

Trichomoniasis is caused by the obligatory parasite, *Tritrichomonas foetus* in cats. This protozoan causes some gastrointestinal symptoms such as colitis, semi-formed to liquid diarrhea, and sometimes fresh bloody or mucoid feces, bloating, and bowel incontinence in the infected cats. The present study aimed to diagnose the *Tritrichomonas foetus* in cats in Ahvaz city by direct smear and culture methods in the Dorset medium. After observation of motile trichomonads, polymerase chain reaction (PCR) is a diagnostic technique carried out to confirm the organism. In the present study, fecal sampling was taken from 100 cats directly using swap. In wet smear, the motile flagellates that were similar in size to *T. foetus* by rolling motion' were identified. Positive samples were cultured in the Dorset medium. A portion of the culture medium was used for extracting genomic DNA followed by nested-PCR assay with two pair primers. The molecular findings showed that 18% of the cats (positive cases) were infected with *Tritrichomonas foetus*. The cats with diarrheic history had the most infection rate with 83/3% and 66/66%, respectively. Also, the rate of infection in cats less than one year was 14% and more than the cats of more than one year (4%) significantly. PCR assay was useful in differentiating between *T. foetus* and another trichomonad observed in fecal samples of the cats.

**Key words:** *Tritrichomonas foetus*, Culture medium, Trichomonosis, Polymerase chain reaction, Cat

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\* **Corresponding Author:** Hossein Hamidinejat, Professor, Department of Pathobiology, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran  
E-mail: hsa.hamidinejat@gmail.com



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